

Appl. No. 10/723,441
Supplemental Amendment

REMARKS/ARGUMENTS

Summary of Interview

Applicants wish to thank Examiner Warren for extending the courtesy of an interview on February 16, 2006. During the interview the claims generally were discussed and a proposed claim 1 was discussed in particular with respect to U.S. Patent 5,027,691 to Kennedy (the Kennedy patent). The proposed claim 1 was as follows:

1. A magnetic pickup for a stringed musical instrument, where the instrument includes a body and strings suspended between a string support attached to the body, comprising:
 - a primary coil fixed to the body of the musical instrument in a position below the strings;
 - a magnet attached below the primary coil;
 - a secondary coil suspended below the magnet in a spaced apart relationship and configured to move relative to the magnet.

No agreement was reached with respect to the patentability of any of the claims.

Claim 1

Claims 1 has been amended as follows:

1. A magnetic pickup for a stringed musical instrument, where the instrument includes strings suspended between a string support structure that includes a sound board, comprising:
 - a primary coil rigidly fixed to the sound board of the musical instrument;
 - at least one magnet rigidly fixed to the primary coil that generates a static magnetic field along at least one pole piece encased within the primary coil;
 - a secondary coil located spaced apart from the primary coil and suspended to move relative to the primary coil;
 - wherein the primary coil is configured to generate a string signal; and
 - wherein the secondary coil is configured to generate a body signal.

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The Kennedy patent includes the following description of a pickup:

The combination electromagnetic and contact pickup is adjustably suspended between the strings and the base segment at the lower end of the finger board. The pickup has a first coil suspended from an adjustable bracket member such that the orientation of the coil with respect to the strings is adjustable. The first coil has a soft iron core wrapped by a plurality of turns of insulated wire in a predetermined direction. A bar magnet, typically ceramic, is affixed in spaced relation to the first coil at the base of the finger board to produce a magnetic field which interacts with both the coil and the five metallic strings.

A second humbucking coil can be provided which has its insulated wire winding wrapped in an opposite direction to that of the first coil, resulting in an opposing electrical sense. This second coil is suspended behind the magnet and finger board within the elongated body and acts to inhibit electromagnetic feedback and noise.

(Kennedy patent, Col 2, Line 51 - Col 3, Line 2)

Applicants respectfully submit that the Kennedy patent teaches a first coil that is used to capture both the body and string signal and a second humbucking coil:

The instrument can be bowed or plucked and is played in much the same manner as a fiddle or violin. The basic theory of operation is as follows. When the strings of the fiddle stick are bowed or plucked, their vibrations are sensed in two ways. The vibrations travel through the body of the instrument and cause the suspended coil to vibrate, due to the mass of the coil and the length of the elongated bracket member. Consequently, the coil vibrates with respect to the magnetic field created by the magnet. These vibrations are very much characteristic of the medium through which they travel. Consequently the type of material used, typically wood, in construction of the body and the supporting bracket will lend its unique properties to the tone quality of the sound of the instrument. The relatively heavy mass of the coil makes the "contact" portion of the pickup more sensitive to lower frequencies and much more resistant to audio feedback than conventional contact pickups.

The second way in which the vibrations are sensed, is similar to most electromagnetic type pickups, with the exception that no pole piece is used and the magnetic field is aligned parallel to the orientation of the metallic strings. Additionally, the elongated bracket member provides several degrees of freedom in adjusting the coil's position relative to the magnet and the strings. One can easily adjust the tone by tilting the pickup relative to the horizontal position, as well as moving the coil's position relative to the strings and the magnet.
(Kennedy patent, Col 3, Lines 3 - 25; Emphasis added)

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In the above passage, the first coil, which is the coil suspended from the adjustable bracket, is the coil that is sensing both the string signal and the body signal. Therefore, Applicants respectfully submit that the Kennedy patent does not anticipate or render obvious claim 1 for reasons including that the pickup described in the Kennedy patent captures a string signal and body signal using a single coil. We also note that Kennedy teaches away from the use of pole pieces.

Claims 2 - 9

Claims 2 - 9 depend from claim 1. Therefore, Applicants respectfully submit that claims 2 - 9 are allowable as claims depending from an allowable base claim.

Claim 24

Applicants respectfully submit that none of the cited prior alone or in combination teach the following of claim 24:

24. A magnetic pickup for a stringed musical instrument, where the instrument includes strings suspended between a string support structure that includes a sound board, comprising:

- a primary coil rigidly fixed to the sound board;
- at least one magnet rigidly fixed to the primary coil that generates a static magnetic field along at least one pole piece encased within the primary coil;
- a secondary coil suspended below the primary coil via a suspension mechanism;

- wherein the suspension mechanism suppresses relative movement of the secondary coil with respect to the primary coil, when the sound board is oscillating in the ring mode.

Therefore, Applicants respectfully submit that claim 24 is allowable.

Claims 25 - 30

Claims 25 - 30 depend from claim 24. Therefore, Applicants respectfully submit that claims 25 - 30 are allowable as claims depending from an allowable base claim.

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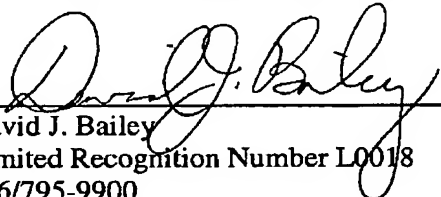
Conclusion

Applicants respectfully submit that claims 1 - 9 and 24 - 30 are allowable for reasons including those stated above. Consequently, Applicants request the prompt issuance of a Notice of Allowability.

If Applicants counsel can be of assistance in this matter, please feel free to contact David J. Bailey at the number listed below.

Respectfully submitted,

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By 
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